

RECLAMATION

Managing Water in the West

Shasta Lake Water Resources Investigation Public Workshops

**Draft Environmental Impact Statement
July 2013**



U.S. Department of the Interior
Bureau of Reclamation

Public Workshops

- Purpose
 - Orientation to the Draft EIS
 - Understanding complex document
 - Communication
 - Focus comments

Presentation Outline

- **Background**
- **Planning Process & Objectives**
- **Proposed Alternatives**
- **Draft EIS Organization**
- **Public Review & Comment**
- **Schedule**
- **Next Steps**

Current Shasta Project

Dam

- 602 feet tall

Powerhouse

- 710 megawatt capacity

Reservoir

- 4.55 million acre-feet storage
- 29,500 acre surface area when full

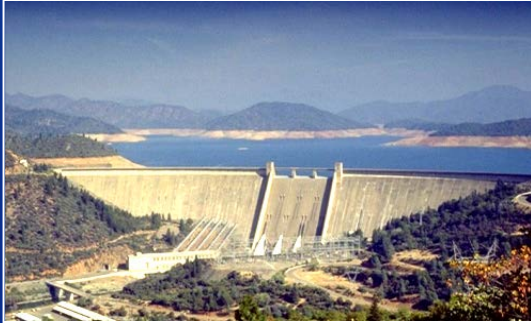
Watershed

- 5.7 million acre-feet mean annual runoff



Reclamation Feasibility Studies

CALFED Bay-Delta Surface Storage



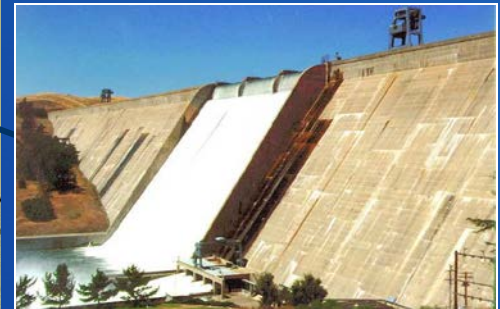
Shasta Enlargement



Los Vaqueros Expansion



North-of-the-Delta
Offstream Storage



Upper San Joaquin
River Storage

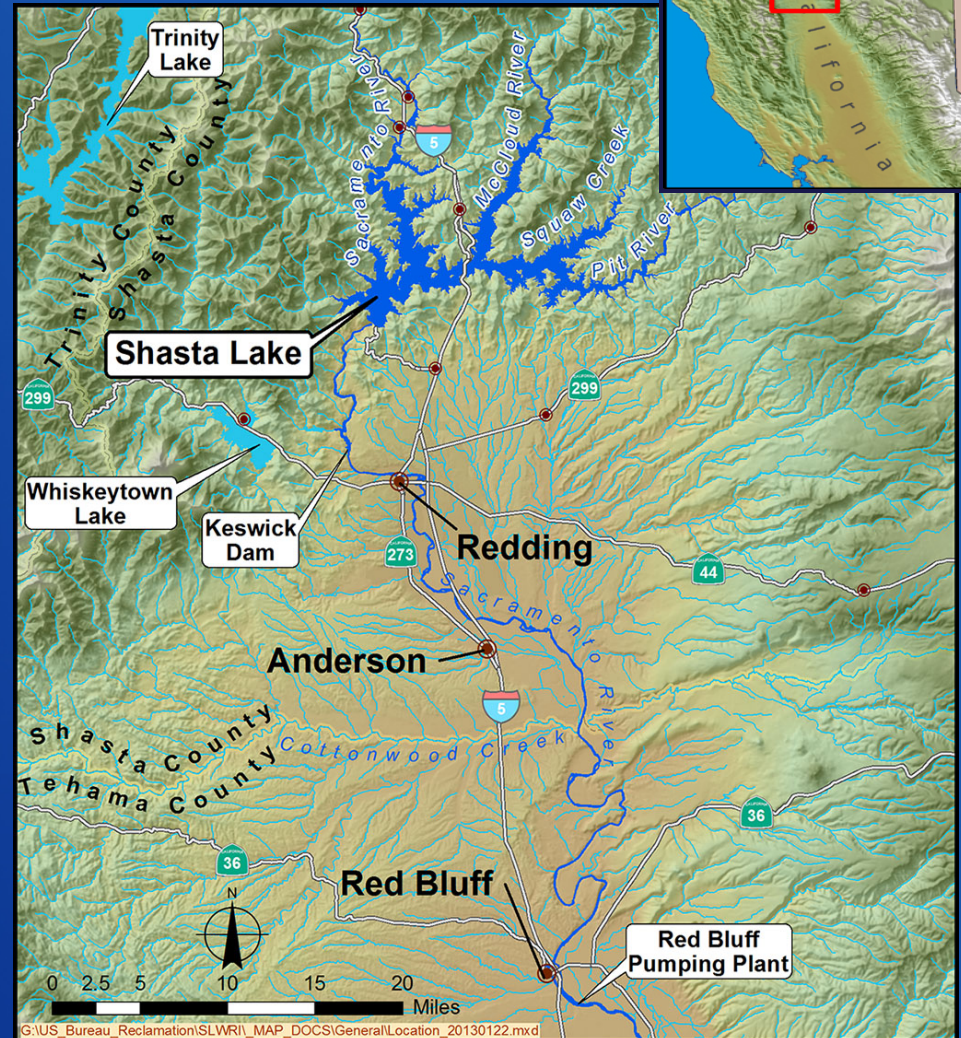
Study Areas

- **Primary Study Area**

- Shasta Dam & Reservoir
- Sacramento River to Red Bluff

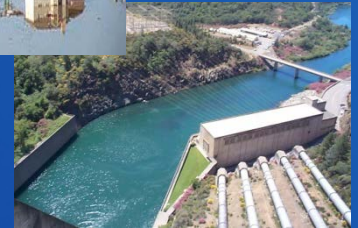
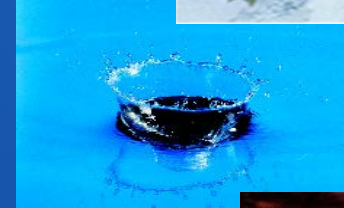
- **Extended Study Area**

- Sacramento River below Red Bluff
- Delta
- CVP/SWP Facilities & Service Areas



Planning Objectives

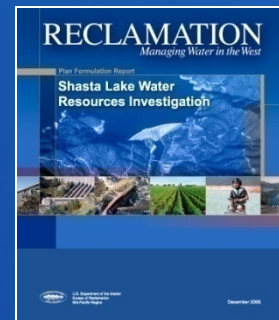
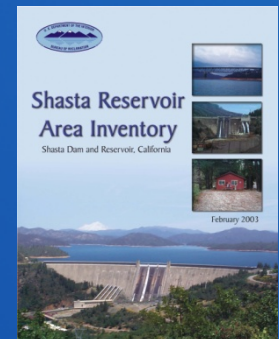
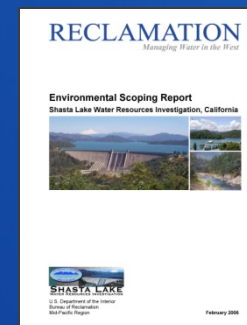
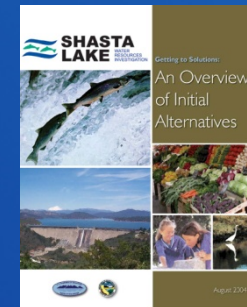
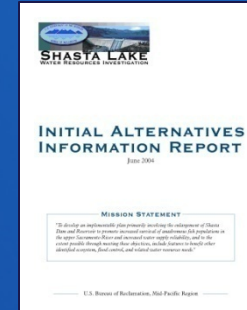
- **Primary Objectives**
 - Anadromous Fish Survival
 - Water Supply Reliability
- **Secondary Objectives**
 - Ecosystem Restoration
 - Reduce Flood Damage
 - Hydropower
 - Recreation
 - Water Quality



Study Reports

- **2013** - Draft EIS
- **2011** - Draft Feasibility Report & Preliminary Draft EIS
- **2007** - Plan Formulation Report
- **2006** - Scoping Report
- **2004** - Initial Alternatives Information Report
- **1999** - Appraisal Assessment

@<http://www.usbr.gov/mp/slwri/index.html>



Draft EIS Alternatives

- CP1, 2, & 3 Focus: water supply reliability & anadromous fish survival
 - CP1 - 6.5 foot dam raise; 256 thousand acre-feet (taf)
 - CP2 - 12.5 foot dam raise; 443 taf
 - CP3 – 18.5 foot dam raise; 634 taf
- CP4 Focus: anadromous fish survival
 - 18.5 foot raise; 634 taf
 - Dedicates 60% of new storage to cold water pool
- CP5 Focus: combination with restoration & enhancement
 - 18.5 foot raise; 634 taf
 - Focuses on water supply reliability and anadromous fish survival; additional ecosystem restoration and recreation features

Elements Common to all Alternatives

- Raising the Dam and Increasing Storage

- Modify dam crest, wing dams, spillway and outlets
- Modify Temperature Control Device
- Modify Hydropower Facilities



- Relocations

- Recreation Facilities
- Vehicle & Railway Bridges
- Road Segments
- Dikes
- Structures
- Utilities



- Resource Protection and Mitigation

Potential Benefits and Costs of Alternatives

	CP1	CP2	CP3	CP4	CP5
Benefits					
Water Supply Reliability Increased Dry & Critical Year deliveries (taf)	47.3	77.8	63.1	47.3	113.5
Anadromous Fish Survival Increase fish population (average annual, fish)	61,300	379,200	207,400	812,600	377,800
Hydropower Generation Increase in power (average annual, GWh)	54	90	90	133	117
Flood Damage Reduction	Yes	Yes	Yes	Yes	Yes
Restore and Enhance Ecosystem Resources	Yes	Yes	Yes	Yes	Yes
Improve Water Quality	Yes	Yes	Yes	Yes	Yes
Maintain and Increase Recreation Increase in recreation (thousands of user days)	89	134	205	370	175
Estimated Cost					
Total Estimated Construction Cost	\$0.9 to 1.2 billion				

Potential Effects

- Effects are similar for all alternatives
- Reservoir Area
 - Primarily related to new inundation areas and construction related activities
- Downstream Areas
 - Primarily related to reservoir/water operations



Draft EIS Organization

- Executive Summary
 - Includes summary of impacts
- Introduction
 - Includes purpose and need
- Alternative Descriptions
 - Includes brief comparison of alternatives
- Orientation to Effects Analysis
 - Guides reader

Draft EIS Organization

- Affected Environment & Environmental Consequences
 - Physical (7 chapters)
 - Biological (3 chapters)
 - Cultural and Native American (2 chapters)
 - Socio-Economic (10 chapters)
- References and Disclosures

Public Review & Comment

- Review Period
 - July 1 to September 30, 2013
- Formal Comments
 - Letters
 - Emails
 - Oral

Public Hearings

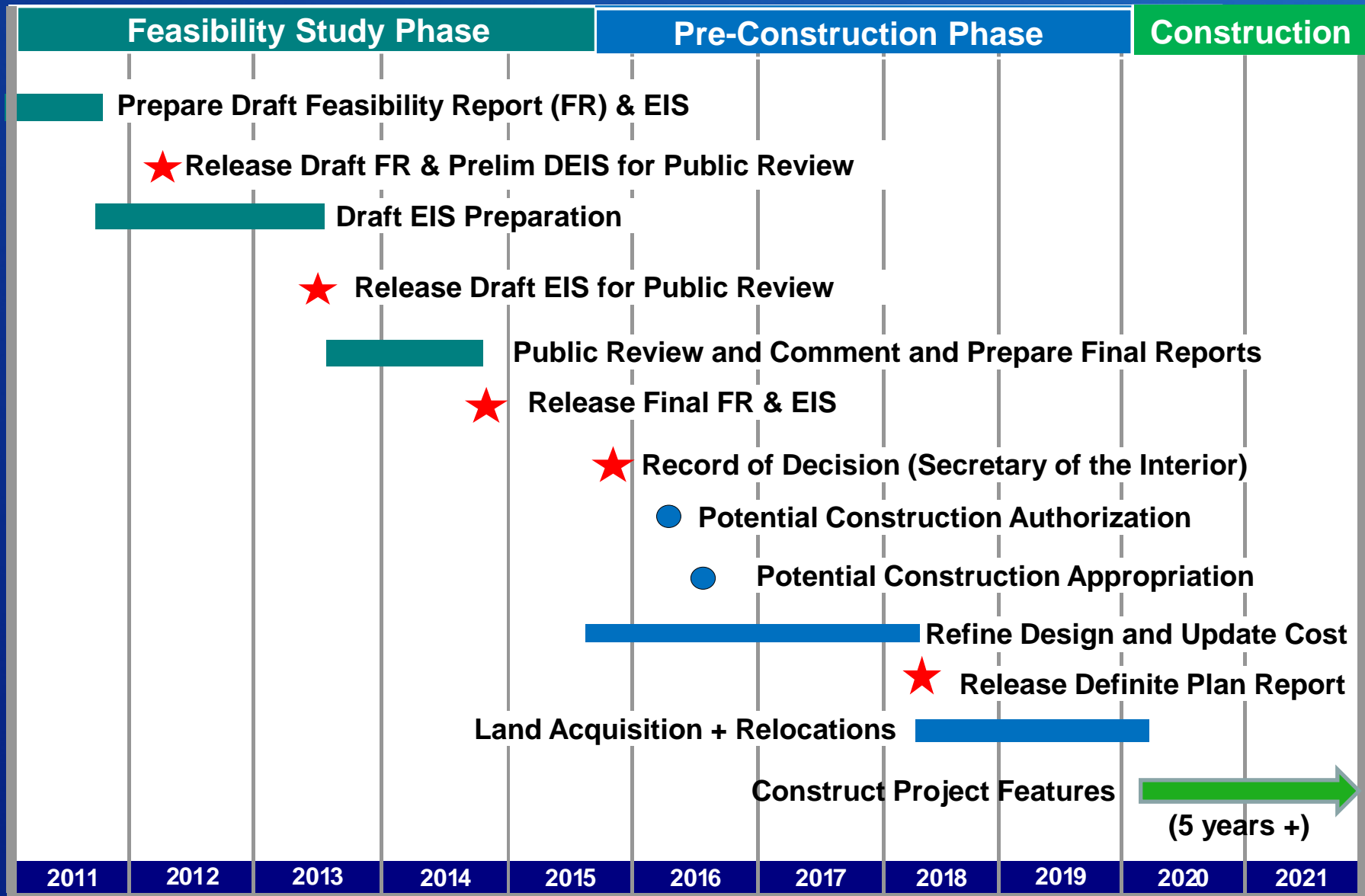
- **Hearings held to receive oral comments**
 - Redding: Tuesday, September 10, 6-8 p.m.,
Holiday Inn, Palomino Room
 - Sacramento: Wednesday, September 11, 1-3 p.m.,
Cal Expo Quality Inn Hotel
 - Los Banos: Thursday, September 12, 6-8 p.m.,
Merced County Fairgrounds

If you require assistance to participate, please contact us as soon as possible

Next Steps

- **Review, categorize, and summarize comments**
- **Respond to comments**
 - Add, clarify, elaborate, change, remove, affirm, etc.
- **Select Preferred Alternative**
- **Prepare Final EIS & Feasibility Report**
- **Prepare Record of Decision**

Schedule



Additional Information

<http://www.usbr.gov/mp/slwr/index.html>



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July 2013

RECLAMATION

Workshop Stations

- **Process, Schedule, & Next Steps**
 - Federal Environmental Review Process
 - Schedule and Next Steps
- **Alternatives**
 - Summary of Alternatives
 - Benefits and Costs
 - Shasta Reservoir Fill and Drawdown
- **Implementation Considerations**
 - Major Features Associated with Shasta Enlargement
 - Real Estate
 - Recreation

Workshop Stations

- **Biological Resources**

- Terrestrial Resources
- Aquatic Resources

- **Cultural Resources**

- Cultural Resources
- Section 106 of the National Historic Preservation Act